STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii

180-Day Exp. Date: August 19, 2009

July 22, 2009

Board of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

REGARDING:	Conservation District Use Application (CDUA) HA-3499 for the Honotua Fiber Optic Cable System
AGENT **APPLICANT:**	AMEC Earth and Environmental Inc. for Office des postes et télécommunications de Polynésie française (OPT)
LOCATION:	Offshore of County of Hawaii's Spencer Beach Park Kawaihae, South Kohala, island of Hawaii, TMK: (3) 6-2-002:008
LANDOWNER:	State of Hawaii
USE:	State Jurisdictional Submerged Land within a Sand Channel Easement
SUBZONE:	Resource

DESCRIPTION OF AREA AND CURRENT USE

The proposed project site is located on the northwest side of the island of Hawaii, South Kohala at Ohailua Beach known as Spencer Beach Park. The Conservation District, Resource subzone is offshore, seaward of the certified shoreline. The area is utilized for recreational uses such as camping, swimming, paddling, and sunbathing. Access to the site is off of Akoni Plue Hwy to Spencer Beach Park Road **(Exhibit 1)**

The beach is about 400-feet long and the Park is within Flood one AE with a base flood elevation of 8-9-feet. Waters offshore are classified as A. A shallow reef extends outward from the shoreline for 2500 feet. A narrow sand channel extends through the reef at the northern end of the beach with scattered coral formations within the channel. This sand channel bisects the shallow fringe reef surrounding Spencer Beach that protects

the beach from extreme wave action. The channel is contained by a relatively large chain of coral mounds ≈3-9 feet in height as the reef extends offshore. Beyond the reef, a large sand deposit extends to the 100-foot depth level. Farther offshore the nearly flat shallow channel gently increases down slope into contiguous waters outside of the State's jurisdiction.

According to the applicant, the proposed cable corridor lies within the naturally formed sand channel bound by surrounding coral mounds. The existing GTE and PLNI cables are located with this same prominent sand channel. This use was established by Conservation District Use Permit (CDUP) SH-2618 for a non-exclusive Interisland Telecommunication Cable Easement approved by the Board of Land and Natural Resources on July 9, 1993 to lay fiber optic telecommunication cable between the islands of Kauai, Oahu, Maui, and Hawaii. There are five existing cables installed at the site.

Worms, mollusks, crustaceans and fish burrows were located within the sand plains. Approximately 300-1000 feet offshore, the sand plain contained meadows of seagrass. Fish were rare over the sand flats although goatfishes and triggerfish were observed. Tiger sharks were observed from the boat.

The most biologically diverse area consists of coral mounds or knolls. These mounds vary in size from single colonies to much larger structures. The larger mounds are a mixture of coral species. Coral cover on the upper surface of the reef platform was on the order of 90%. Sea cucumbers and urchins and small isolated patches of alga were noted. The coral mounds provide the habitat for a variety of fish such as the damsel, surgeon, butterfly, Moorish idols, and hawk fish. Common wrasses and squirrelfish were observed under ledges at the bases of some of the larger coral mounds. All five existing cables that were situated above the elevation of the seafloor were colonized with living coral colonies **(Exhibit 2 & 3)**.

In marine waters, Hawaiian marine protected species that may occur in the vicinity of the project include the federally threatened green sea turtle, the federally endangered Hawaiian monk seal and the federally endangered humpback whale. Spinner dolphins may also frequent the area.

The applicant has concluded that because the corridor had been previously excavated for cable installation, and the beach sand is believed to have been imported, there is an extremely low probability for containing intact cultural resources. The beach area was disturbed during those installations, as well as from development associated with Park improvements.

PROPOSED USE

Applicant, Office des postes et telecommunications de Polynésie française (OPT) proposes to install one subsea fiber optic cable that will provide a connection between the existing cable station and onshore telecommunication facility at Spencer Beach Park and OPT's infrastructure on the island of Tahiti, French Polynesia. The proposed Honotua Cable System consists of a single fiber optic cable that will establish the first subsea

telecommunications services linking to countries outside of French Polynesia. With this Hawaiian connection, the system will also interconnect with trans-pacific systems extending to the West coast, Japan, China and other developing countries on the western Pacific rim, accommodating projected growth in broadband applications and e-commerce. The system also increases redundancy to telecommunications networks thereby reducing the potential for system failures.

The proposed cable route shall run ≈ 2,734 miles from Tahiti to this landing site and operation of the cable system is expected for ≈ 25 years. The project consists of the following elements: cable installation by main lay vessel; shore end landing and commissioning and operation of the system. The project design aims to minimize new construction by focusing on the use of spare capacity within the existing infrastructure currently available at Spencer Beach, a major international sub sea cable-landing site.

The proposed cable route has been chosen based on results of detailed surveys. The main lay cable installation will involve laying the cable along a pre-determined route using special-purpose cable ships. The routing is designed to avoid potential hazards, disruption to marine resources and operations, and to secure long-term protection of the cable. The landing was selected to optimize the approach to the existing infrastructure to minimize interference with existing cables and to use the seafloor features that effectively function as a natural corridor for the cable route. By shifting the shore crossing point south away from the tidepool area, denser coral areas can be avoided **(Exhibit 4)**.

CABLE

The proposed cable is an optical fiber sub sea cable. The cable design can accommodate up to six pairs of fibers that are housed in a jelly-filled stainless steel tube, surrounded by two layers of steel wires that form a protective vault against pressure and external contact and also provided tensile strength. The vault is then enclosed in a hermetically sealed copper tube and insulated with a layer of polyethylene to form the basic deep-sea lightweight cable. This basic Lightweight Cable (LC) is generally used in waters greater than 11,500-ft deep and is ≈ 0.67 inches in diameter.

In shallower waters, additional protection is provided by adding galvanized steel armor wires by stranding a single layer of high strength treated (the steel wires are saturated with bituminous compound and covered by polypropylene yarns) galvanized steel wires over the basic lightweight cable structure. This Single Armor (SA) cable is normally used where full protection by burial is possible. It may be used at water depths of 0-4900-ft deep. This Single Armor cable is ≈ 1.02 inches in diameter.

In very shallow waters, Double Armor (DA) cable could be used. This cable is made by adding a second layer of treated galvanized steel wires around the SA cable. This cable is normally used for surface lay or to add additional protection where burial was originally thought to be possible. It may be used at any water depth between 0-1,640-ft deep but is generally used between 0-656-ft deep and is ≈ 1.38 inches in diameter.

Where cable stability and protection require it, articulated pipe may be fitted over the cable. As necessary and to prevent lateral movement of the articulated pipe, stainless steel saddle clamps will be installed by divers at suitable intervals where seabed conditions permit to provide ultimate stability. Articulated pipes may be installed by divers, so the maximum deployment depth is usually 66 feet. The pipe has a diameter of 3".

Main Lay Vessel

The Honotua cable will be laid by cable ship from Tahiti to Spencer Beach through US territorial and Hawaii state waters. The ship will have a dynamic positioning (DP) system that enables it to maneuver in the nearshore area without anchoring. Smaller boats are typically required to assist the cable ship during the shore end landing operation.

The cable ship shall comply with applicable regulations and international conventions addressing navigational safety, safe operations and pollution prevention measures. The location and duration of the vessel's presence in the project area shall be included in a notice submitted in advance in accordance with U.S. Coast Guard (USCG) requirements to allow the USCG to issue a notice to mariners and alert other vessels of its presence, expected time in the project area, and contact information.

The main lay will be conducted 24 hours a day until the ship reaches shallow water from where the shore end landing operation is carried out. During the main lay, the ship will operate at speeds of about 4 knots as it approaches Hawaii. From the point of entering U.S. territorial waters, the duration of the main lay operations will be approximately one day to approach the Spencer Beach landing. Once off the landing location, the cable ship will wait for daylight hours and suitable conditions before initiating the shore end landing operations.

Shore End Landing

The work area will be cordoned off from public access using temporary safety fencing. Markers and site control on the beach will identify and maintain a safe work area without the need to close the entire beach area to users. Security shall be provided for equipment that may be staged overnight. After installation, the site will be restored to its original condition. The expected duration of the beach works and shore-end activities is approximately 10-days. The installation vessel will be present on site for 1-2 days.

The landing operation will be conducted during daylight hours, with operations ideally commencing around 6 AM. Equipment and materials will be staged at the project area. A floating hauling line will be run from shore to the cable ship to haul the cable ashore. As the cable is paid out from the cable ship, floats will be attached. Hauling operations will continue until sufficient cable is ashore to reach the BHM and all the remaining shore-end cable onboard the ship is paid overboard. The final heaving from the shore will straighten the cable out, and the ship will lower the cable to the seafloor. The cable will then be released and the ship will move away to deeper water.

Once the cable end is secured ashore and tests are competed, divers will be instructed to start trimming the remaining cable floats. The floats will be cut away progressively from the shoreline towards the cable ship. The divers will confirm the cable is lying flat on the seabed in an acceptable manner and position and where possible, may manually reposition the cable if required. After the cable is placed on the seabed, the cable end, currently on the beach will be installed in the BMH.

After the cable has been installed in the BMH, articulated pipe will be applied over the cable from the BHM to the water line of a distance of about 329-feet offshore. A trench will then be excavated from the BMH to the water line to bury the cable; some trenching will be done manually to avoid contact with underlying rock, if any is present. The planned depth of the trench across the beach will be 7-feet. ≈ 474cubic meters of sand will be excavated. No sediments will be removed for the project area, nor will materials be introduced to the beach to fill the excavated area.

An excavator will be used to bury the cable as close as possible to the low water mark, and self-burial of the cable is expected to occur through the surf zone. In areas where self-burial has not occurred, jet burial into the seabed by divers out to 10-feet in depth will be carried out where possible and where adequate sediment is present. Once instated, the cable requires no routine maintenance.

Mitigation measures have been developed to avoid or reduce impacts during installation of the cable. Mitigation and Best Management Practices noted as Table 8-1 Honotua Cable System Project Impacts Summary **(Exhibit 5),** shall be incorporated into the permit. Staff notes impacts are short termed, a qualified archaeological monitor will be present during excavation activities, An onboard observer shall implement marine Protected Species Protection Protocols during installation to identify and take action as needed to avoid disturbance of or contact with marine animals. An observer shall be present onshore prior to beach activities to ensure there are no turtles or seals present at the beach prior to staging. Designated resource managers will be contacted for incidents.

Alternatives Considered

Site

An alternative site was landing at Mauumae Beach located ≈ .54 miles to the south of Spencer beach. This alternative was dismissed because it lacked existing infrastructure and would require more construction to reach an existing cable station. No cables currently exists a Mauumae Beach and no onshore infrastructure is in place.

Beach Landing Site at Spencer Beach

Existing cables installed at Spencer Beach approach and cross the beach through a rocky tidepool area. Installation at this location would disturb a portion of the tide pool area. Another factor is that the existing corridor is "crowded" and is without ducts under the beach to connect to the BMH. There would be a potential to damage other existing cable and achieving satisfactory depth of burial could be difficult. The location also has less space for staging and maneuvering equipment. Access to the existing landfall has been partially obstructed by recent park improvements.

Technique
Instead of the proposed trenching, Horizontal Directional Drilling (HDD) was also considered to implement the project. HDD would increase the potential for disturbance because of the longer duration of drilling operations. There would be a potential for incidents of spills of chemical fluids into the fresh and seawater environments should heavy rain conditions affect the site and the possible nearshore impacts resulting from the bore exist near coral mounds and/or hard substrate. As such the HDD alternative was not selected.

No Action Alternative
The project objectives of increasing access to Trans-Pacific telecommunications networks and improving the diversity and security of existing networks would not be achieved.

SUMMARY OF COMMENTS

The application was referred to the following agencies for their review and comment-the Federal: Coast Guard and National Oceanic &Atmospheric Administration; the State: Department of Land and Natural Resources Divisions of: Aquatic Resources, Conservation & Resource Enforcement, Hawaii District Land, Boating and Ocean Recreation and Historic Preservation, Department of Accounting and General Services-Information Communication Services Division; the Department of Health; the Office of Hawaiian Affairs; the Office of Environmental Quality Control; the County of Hawaii Departments of Planning and Parks and Recreation. In addition, this CDUA was also sent to the nearest public library, the Thelma Parker Waimea Public Library and the Kailua-Kona Public Library, to make this information readily available to those who may wish to review it.

Comments were received by the following and summarized by Staff as follows:

THE STATE

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

Information and Communication Services Division

No Comments

DEPARTMENT OF HEALTH

Clean Water Branch
There maybe additional requirements related to our program. We recommend that you read our standard comments on our website. Any project and its potential impacts to State waters must meet the criteria of HAR, §11-54 & §11-55.

You may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater. The NPDES application must be required by SHPD. Consult with the Army Corps of Engineers for determination of a Department of the Army (DA) permit. Should the project require a DA permit, a Section 401 Water Quality Certification shall be required from our office. State Water Quality Standards must be complied with.

We strongly recommend review of all of our Standard Comments on our website.

Applicant's response

We appreciate the opportunity to work with the Department of Health through the approval and permitting process for the project. The Honotua Fiber Optic Cable System will be installed and operated in compliance with all applicable laws and regulations. A DA permit is in progress noted as file # POH-2008-238; A NPDES permit is not required as the project will generate no wastewater discharge or storm water run-off into State surface waters and the area to be excavated and equipment operations and staging areas will be fully contained in less than one acre of total land area.

OFFICE OF HAWAIIAN AFFAIRS

We express some concerns over the proposed routing of the cable. The project will not retain the present footprint of existing telecommunications infrastructure. Instead a virgin route was chosen because the other route appears to be "crowded." Please elaborate upon why previous routing is no longer preferred.

OHA notes, the applicant states that no structures other facilities will be constructed as a result of the CDUA, OHA points out that a rather large ocean grounding bed is required. OHA requests if the applicant could avoid this impact by using other routing and truly sharing the footprint of existing structures.

We appreciate the applicant having a qualified archaeological monitor present during excavation activities in the cable corridor. Should significant cultural deposits or human skeletal remains be encountered, we ask that work stop and the State Historic Preservation Division be contacted.

The project should comply with the Section 106 process. OHA is unaware of any consultation regarding this proposal with us although OHA is the only Native Hawaiian organization listed under Section 106.

Federally threatened species may be present during work and all construction personnel should be educated regarding their protection. OHA urges that observers/spotters should monitor waterways for their presence and wait until species voluntarily leave the area. OHA requests that these observations begin a half hour before construction begins.

OHA points out that no best management practices exist for corals and that state laws prohibit the breaking or damaging of coral. We also ask how this proposal coordinates with the HAR, 11-54-3 Marine Bottom Ecosystems.

Applicant's response

Proposed Routing. The proposed cable route follows that of the existing cables through the sand channel and diverges only near the shore just south of the existing landing site. At the existing shore crossing, there is no conduit through which the cable could be installed, so installations at this location would disturb a portion of the tide pool and possibly coral mounds. The existing shore crossing and approach to the beach manhole is more congested by features in the park resulting in less space for staging and maneuvering equipment. Access to this area has been partially obstructed by recent park improvements. Therefore, a more direct approach was developed for the shore crossing area.

Ocean Grounding Bed (OGB). The OGB used by the existing cables is located in the water, adjacent to the tide pool area and extending into the sand channel. There is no capacity to add another cable to the existing OGB so a new one is required. After installation of the OGB, the site will be restored to its original condition.

Staff notes, the OGB is located outside of the Conservation District.

Section 106 Consultation shall take place under the US Army Corps of Engineers. The CDUA was released prior to the issuance of the pre-construction notice from the Corps.

Species Protection. Best Management Practices will be implemented to reduce or eliminate adverse effects on protected marine species. An observer will be posted on the ship as well as on the beach. Temporary signs will be posted approximately 1-week prior to construction for public awareness.

Corals. We have incorporated coral protection into the project approach, which influenced the shore-crossing route. Additional information was gathered to provide more detail in the installation methods and the expanded procedures are contained in the Final Environmental Assessment.

The project will be installed and operated in compliance with all applicable laws and regulations including the State Water Quality Standards HAR, Section 11-54.

DEPARTMENT OF LAND AND NATURAL RESOURCES

Division of Aquatic Resources
-Hawaiian Island Humpback Whale National Marine Sanctuary

We note that the project will require compliance with Section 10 of the Rivers and Harbors Act, administrated by the US Army Corps of Engineers and that the applicant has already begun consultation regarding marine mammal and sea turtle impact

mitigation with the Corps and other federal authorities. We also note that "BMPs for Boat Operations and Diving Activities" provided by the National Marine Fisheries Service to protect marine mammals and sea turtles and that the applicant has indicated that theses practices will be adhered to during project implementation. Impacts from this proposed project would most probably be negligible.

Conservation and Resource Enforcement

No comments

Hawaii District Land Office (HDLO)

The project will require grants of easement from the Board of Land and Natural Resources for routing the fiber optic cable system across submerged lands, coastal lands and fast lands under State jurisdiction, as well as a concurrence from the County of Hawaii for an easement across Spencer Beach Park.

Applicant's Response

A request for a perpetual, non-exclusive submarine cable easement has been submitted. The County of Hawaii, Department of Parks and Recreation subsequently submitted a letter of concurrence to the HDLO.

Historic Preservation Division (SHPD)

Previous grubbing, grading has altered the land. An accepted archaeological inventory survey found no historic properties. In the event that historic resources, including human skeletal remains, cultural materials, lava tubes, and lava blisters/bubbles are identified during the construction activities, all work shall cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the SHPD contacted.

COUNTY OF HAWAII

PLANNING DEPARTMENT

The site on TMK: (3) 6-2-002:008 is designated Urban by the State Land Use Commission, zoned Open by Hawaii County Code and designated Open by the Hawaii County General Plan. The parcel is located entirely within the Special Management Area (SMA) and has frontage along the shoreline. All activities or operations in the SMA are subject to review and permitting under the SMA guidelines.

A potential concern of the Planning Department is the diversion from existing cables near the shoreline resulting in the cable traversing the high-traffic beach area rather then remaining to the north and crossing the land through areas less frequented. Justification for this diverted cable placement will need to be addressed.

A large capacity cesspool is not depicted in the site plan.

Applicant's Response

The Planning Department has determined that the Honotua project will require an SMA Minor Use Permit. We anticipate issuance of the SMA Minor Use Permit by the end of July 2009.

The proposed cable route follows that of the existing cables through the sand channel and diverges only near the shore approach. The existing shore crossing has no conduit through which the cable could be installed; the installation would disturb a portion of the tide pool area and possibly coral mounds, which are denser near the existing shore crossing. There are five cables and three ground wires crossing through this location and buried under the beach. The crossing and approach to the beach manhole is more congested by features in the park area resulting in less space for staging and maneuvering equipment. Access the area has been partially obstructed by recent park improvements. Therefore, a more direct approach was developed for the shore crossing area. Aside from this limited area, the Honotua project follows the overall corridor and will use existing infrastructure from the BMH to the terminal Station.

Disruption to beach park use will be short-term, and the average park visitor will not be restricted from use of the beach after the installation is complete and the beach restored.

We will coordinate with the County to make sure there is no disturbance to the cesspool during construction activities.

ANALYSIS

After reviewing the application, by letter dated February 20, 2009, the Department has found that:

1. The proposed use is an identified land use in the Resource subzone of the Conservation District, pursuant to §13-5-3, Hawaii Administrative Rules (HAR), §13-5-22, P-6, PUBLIC PURPOSE USES, D-2, Transportation systems, transmission facilities for public utilities, water systems, etc., which are undertaken by non-governmental entities which benefit the public and are consistent with the purpose of the conservation district. Please be advised however, that this finding does not constitute approval of the proposal;

2. Pursuant to §13-5-40 of the HAR, a Public Hearing will be required as the fiber optic line may be utilized for commercial purposes;

3. In conformance with Chapter 343, Hawaii Revised Statutes (HRS), as amended, and Chapter 11-200, HAR, a finding of no significant impact to the environment (FONSI) is anticipated for the proposed project;

Please be informed that, the applicant's responsibility includes complying with the provisions of Hawaii's Coastal Zone Management law (Chapter 205A, HRS) that pertain

to the Special Management Area (SMA) requirements administered by the various counties. Negative action by the Board of Land and Natural Resources (BLNR) on this application can be expected should you fail to obtain and provide us, at least forty-five (45) days prior to the 180-day expiration date as noted on the first page of this notice, one of the following from the appropriate county:

1. An official determination that the proposal is exempt from the provisions of the county rules relating to the SMA;

2. An official determination that the proposed development is outside the SMA; or

3. An SMA Use Permit for the proposed development.

Notice of CDUA HA-3499 and the draft Environmental Assessment was published in the March 8, 2009 issue of the Environmental Notice. The FONSI was published in the July 8, 2009 issue of the Environmental Notice.

A public hearing took place on the evening of April 2, 2009, at Spencer Beach Park. No substantive comments regarding this project were provided.

Work within the SMA area does not lie within the Conservation District and does not fall under the state's jurisdiction.

CONSERVATION CRITERIA

The following discussion evaluates the merits of the proposed land use by applying the criteria established in Section 13-5-30, HAR.

1. *The proposed land use is consistent with the purpose of the Conservation District.*

   The objective of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare.

   The project is considered an identified land use in the subject area of the Conservation District; as such, it is subject to the regulatory process established in Chapter 183C, HRS and detailed further in Chapter 13-5, HAR. This process provides for the application of appropriate management tools to protect the relevant resources, including objective analysis and thoughtful decision-making by the Department and Board of Land and Natural Resources.

   Staff believes the proposal is consistent with the purpose of the Conservation District as the proposal is within a previously disturbed area within an existing easement. Location of this and other cables promotes the practice of submarine fiber optic co-location landing sites. The Applicant shall observe best

management practices for groundwork, marine species observation and shall have an archaeological monitor on site.

2. *The proposed land use is consistent with the objectives of the subzone of the land on which the use will occur.*

The objective of the Resource subzone is to develop, with proper management, areas to ensure sustained use of the natural resources of those areas. The proposed use is an identified land use in the Resource subzone of the Conservation District, pursuant to §13-5-3, Hawaii Administrative Rules (HAR), §13-5-22, P-6, PUBLIC PURPOSE USES.

As work shall take place within an existing defined and previously disturbed easement, Staff believes the proper management and use of the easement shall sustain the natural resources of the project area.

3. *The proposed land use complies with provisions and guidelines contained in Chapter 205, HRS, entitled "Coastal Zone Management," where applicable.*

The proposed project will be of a short duration and incorporates protective measures to prevent adverse effects to the resources. Staff believes that recreational resources, historical resources, scenic and open space resources, and coastal ecosystems, shall be preserved with the incorporation of the stated best management practices.

The applicant shall comply with all County of Hawaii Ordinances including any Special Management Area requirements related to Coastal Zone Management.

4. *The proposed land use will not cause substantial adverse impacts to existing natural resources within the surrounding area, community, or region.*

Staff believes the proposed land use will not cause substantial adverse impacts to existing natural resources within the surrounding area, community or region. The proposed land use does not change the existing use of the area.

5. *The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding area, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

The proposed use utilizes existing infrastructure and does not require new construction of above ground facilities. All landing site infrastructure are present at the site. The project will not create a visual or functional change in the project area.

6. *The existing physical and environmental aspect of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, which ever is applicable.*

As the project is of a short duration, the project area shall be returned to it's natural state and mitigation for potential impacts have been formulated. Staff believes the existing physical and environmental aspects of the land shall be preserved.

7. *Subdivision of the land will not be utilized to increase the intensity of land uses in the Conservation District.*

There will be no subdivision of land for this proposed project.

8. *The proposed land use will not be materially detrimental to the public health, safety and welfare.*

Staff believes the proposed project will not be materially detrimental to the public health, safety and welfare. During the construction period, the public shall be restricted from entering the work area to maintain safety. There shall be controlled access to clearly define and limit work areas, which shall protect the public from potential hazards associated with machinery. Staff believes increased telecommunication systems shall improve public health, safety and welfare by providing another venue to channel information for public good.

DISCUSSION

The proposed Honotua Cable System consists of a single fiber optic cable that will establish the first subsea telecommunications services linking to countries outside of French Polynesia. With this Hawaiian connection, the system will also interconnect with trans-pacific systems extending to the West coast, Japan, China and other developing countries on the western Pacific Rim, accommodating projected growth in broadband applications and e-commerce. The system also increases redundancy to telecommunications networks thereby reducing the potential for system failures.

The routing at the landing was selected to optimize the approach to the existing infrastructure to minimize interference with existing cables and to use the seafloor features that effectively function as a natural corridor for the cable route. The proposal requires review and approvals of other agencies such as the US Army Corps, Hawaii County Setback and Special Management Use and a land easement.

Prior to project implementation, the location and duration of the cable laying vessel's presence in the project area shall be included in a notice submitted in advance in accordance with U.S. Coast Guard (USCG) requirements to allow the USCG to issue a notice to mariners and alert other vessels of its presence, expected time in the project area, and contact information.

As a large portion of the beach area will be temporarily closed off to the public, coordination with the County of Hawaii, Department of Parks shall take place to reduce impacts to park users. The worksite shall be cordoned off from public access using safety

fencing. Markers and site control on the beach shall identify and maintain a safe work area, without the need to close the entire beach area to users. Security shall be provided for equipment that may be staged overnight.

The project proposal lies within an existing disturbed corridor within an existing easement. Location of this and other cables promotes the practice of submarine fiber optic co-location landing sites. The Applicant shall observe best management practices for groundwork, marine species observation and shall have an archaeological monitor on site.

RECOMMENDATION:

Based on the preceding analysis, Staff recommends that the Board of Land and Natural Resources APPROVE this Conservation District Use Application (CDUA) HA-3499 for the Honotua Fiber Optic Cable System Located at Kawaihae, South Kohala, Island of Hawaii, offshore of Spencer Beach Park, TMK: (1) 8-1-001:008 subject to the following conditions:

1) The applicant shall comply with all applicable statutes, ordinances, rules, regulations, and conditions of the Federal, State, and County governments, and applicable parts of the Hawaii Administrative Rules, Chapter 13-5;

2) The applicant, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim or demand for property damage, personal injury or death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;

3) The applicant shall obtain appropriate authorization from the Department for the occupancy of State lands;

4) The applicant shall obtain appropriate authorization from the County of Hawaii. Cable landing shall be coordinated with the County of Hawaii;

5) The applicant shall comply with all applicable Department of Health administrative rules;

6) Before proceeding with any work authorized by the Board, the applicant shall submit four (4) copies of the construction and grading plans and specifications to the Chairperson or his authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Three (3) of the copies will be returned to the applicant. Plan approval by the Chairperson does not constitute approval required from other agencies;

7) Any work done or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have

been signed by the Chairperson, and, unless otherwise authorized, shall be completed within three (3) years of the approval. The applicant shall notify the Department in writing when construction activity is initiated and when it is completed;

8) All mitigation measures set forth in the application materials and in the final environmental assessment for this project noted as Table 8-1 Honotua Cable System Project Impacts Summary **(Exhibit 5),** are hereby incorporated as conditions of the permit including but not limited to the following:

   a. Upon construction completion, the Applicant shall restore the project site to its original condition;

   b. The Applicant shall provide public notification to inform the public of the project;

   c. The Applicant shall have an Archaeological Monitor on site during any and all excavation work;

   d. The Applicant shall have an onboard observer to implement marine Protected Species Protection Protocols during installation to identify and take action as needed to avoid disturbance of or contact with marine animals;

9) The applicant understands and agrees that this permit does not convey any vested rights or exclusive privilege;

10) In issuing this permit, the Department and Board have relied on the information and data that the applicant has provided in connection with this permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Department may, in addition, institute appropriate legal proceedings;

11) Where any interference, nuisance, or harm may be caused, or hazard established by the use, the applicant shall be required to take the measures to minimize or eliminate the interference, nuisance, harm, or hazard;

12) The applicant shall notify the Office of Conservation and Coastal Lands (OCCL) in writing at least one week prior to the initiation of work within the Conservation District and the cable installation, and upon completion of the project;

13) Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The contractor shall immediately contact HPD (692-8015), which will assess the

significance of the find and recommend an appropriate mitigation measure, if necessary;

14) Should the cable become uncovered in the shoreline area, immediate action to rebury the cable shall be initiated;

15) Other terms and conditions as may be prescribed by the Chairperson; and

16) Failure to comply with any of these conditions shall render this Conservation District Use Permit null and void.

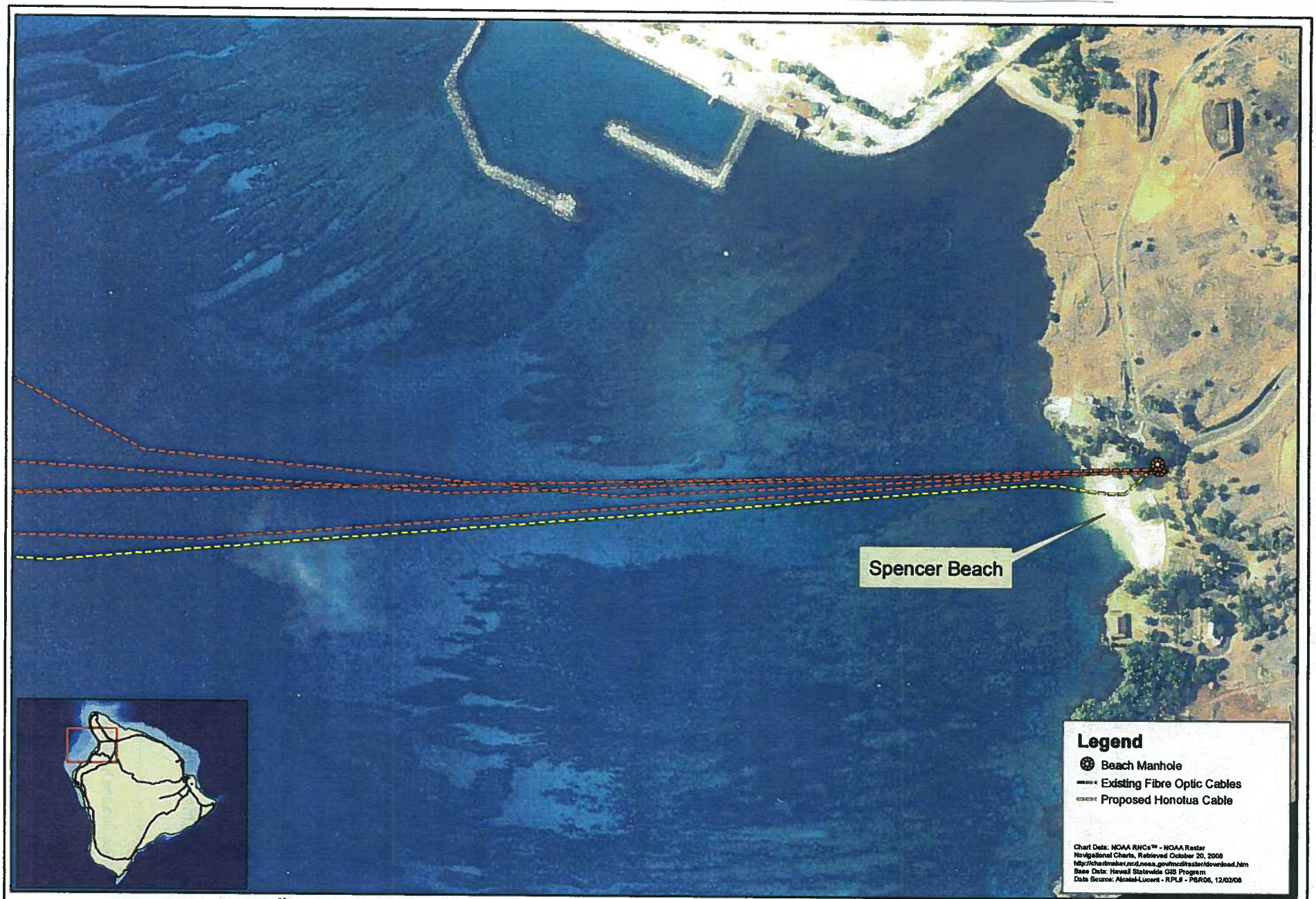
Respectfully submitted,

K. Tiger Mills, Staff Planner
Office of Conservation and Coastal Lands

Approved for submittal:

Laura H. Thielen, Chairperson
Board of Land and Natural Resources

EXHIBIT 1



Final EA
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Figure 2-2

Existing and Proposed Cable Routing

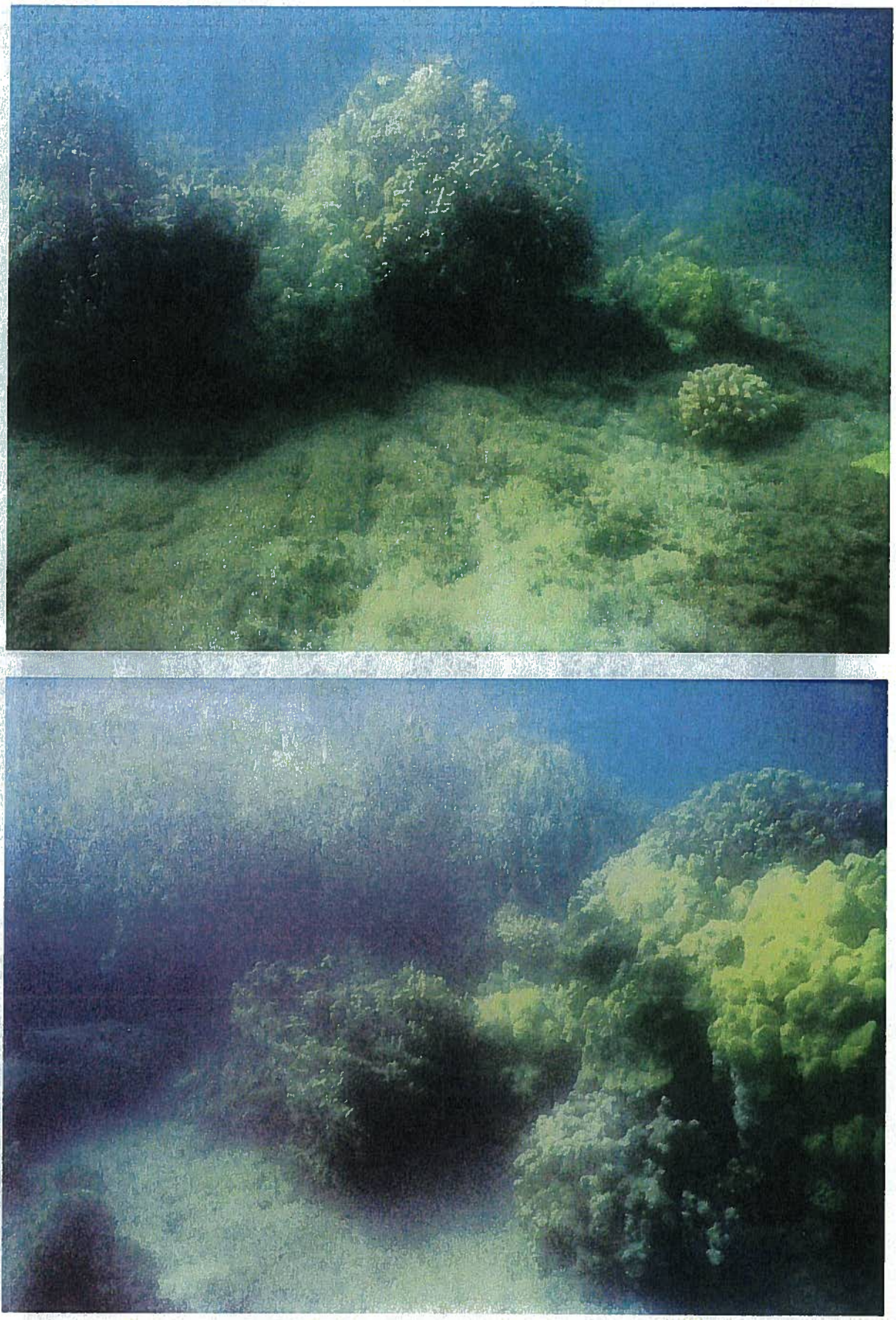

FIGURE 4. Several views of "coral mounds" that occur throughout sand channel off Spencer Beach that comprises the alignment for the Honotua Cable at Spencer Beach. Branching "finger coral" in both upper and lower photo is *Porites compressa*.

EXHIBIT 2

FIGURE 7. Several views of existing cables that traverse the sand channel off Spencer Beach that comprises the alignment for the Honotua Cable at Spencer Beach. In both upper and lower photos corals can be seen colonizing portions of the cables. White branching coral in lower center of bottom photo is *Pocillopora meandrina*.

EXHIBIT 3

EXHIBIT 4

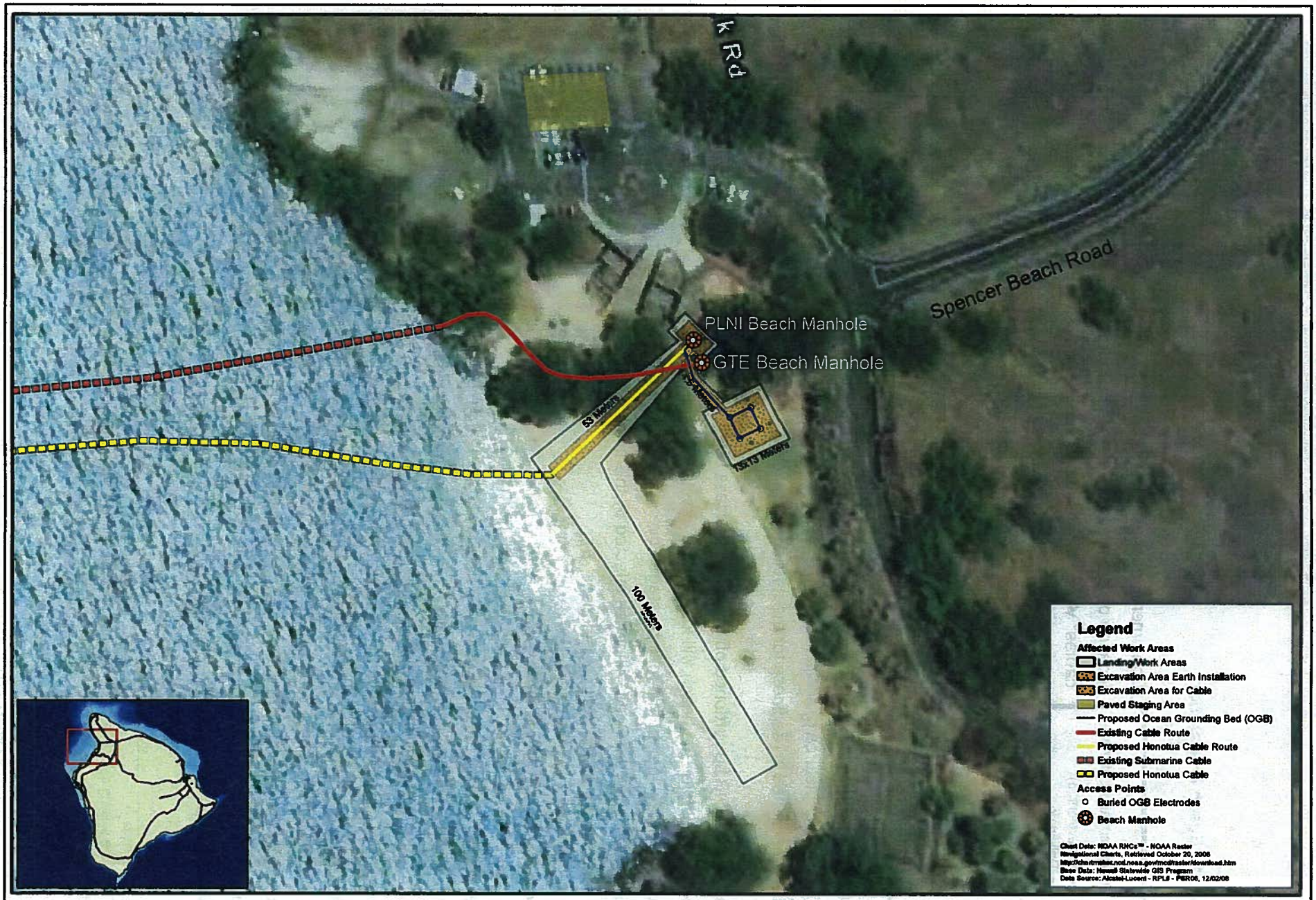

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Figure 2-4

Beach Layout and Excavation Areas

0 50 100 200 300 Feet

0 20 40 60 80 Meters

Table 8-1. Honotua Cable System Project Impacts Summary

Resource Area	Short-term Impacts	Long-term Impacts	Mitigation and BMP
Topography & Geological Resources	• Ground-disturbing activities (i.e., during site preparation and construction). • Temporary redistribution of sediments.	No impact	BMPs: • Site restoration to original condition at conclusion of project. No Mitigation required.
Land Use	• Controlled public access in a limited area of the beach at Spencer Beach Park.	No impact	BMPs: • Local authorities, such as County Parks and local lifeguards, will be given advance notice of the work schedule. • Controlled access to the work area for public safety, but no beach closures. Access will be controlled through a number of measures, which may include temporary fencing, signage, and staff. • Security protection of equipment for public safety. Mitigation: • Protection of coastal resources (see Archaeological and Historical Resources).
Archaeological & Historical Resources	• Potential disturbance to archaeological and historical resources during excavation.	No impact	Mitigation: • A qualified archaeological monitor will be present during excavation activities in the cable corridor; and • If potentially significant resources are uncovered during excavation or trenching activities, all excavation or trenching activity shall halt until the nature and significance of the resources can be determined by the on-site archaeologist.
Cultural, Social & Economic Resources	No impact.	No impact	See Land Use and Archaeological Resources for related BMPs and mitigations.
Visual & Aesthetic Resources	• Presence of equipment and vessels and equipment for 6 to 10 days, which will be visible to beach users.	No impact	Equipment will be confined to work areas and the site kept tidy...

EXHIBIT 5
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Table 8-1. Honotua Cable System Project Impacts Summary (Continued)

Resource Area	Short-term Impacts	Long-term Impacts	Mitigation and BMP
Water Resources	• Localized and temporary increase in turbidity in the surf zone when cables jetted into the sediments by divers.	No impact	BMPs: • Management of refuse and general site management to prevent materials from entering drainages or ocean. • Spill prevention and response plans for vessels and site management of equipment fluids. • Safety plans specific to the work area to prevent accidents. No Mitigation required.
Marine & Nearshore Resources	No impact.	No impact	BMPs: • Use of desktop study findings to select cable design and routing; • Application of cable route survey data to refine the cable route and design to avoid external hazards (landslides, steep slopes, anchorages); and • Maximized use of existing infrastructure and landing sites, which provides site and operating history that can be used in routing and cable design. No Mitigation required.
Terrestrial & Aquatic Biological Resources	• Short-term disturbance to the flat sandy area between the BMH and the water during excavation • Potential for short-term disturbance to marine mammals and sea turtles by the presence of vessels and placement of cables during installation of the cable. • Potential direct effects on corals during installation of the cable on the seafloor.	No impact	BMPs: • Following the completion of construction activities, the contractor will return the site to its preconstruction condition. • Vessel crew will be briefed on the specific requirements to be adhered to during installation in the project area so they are fully aware of issues or resources with project-specific procedures or reporting requirements. • Inshore installation procedures are based on an established route that was developed in concert with the marine biological dive survey so procedures are aligned with site-specific considerations. Corals and reef structures were factored into the route planning.

EXHIBIT S
2 of 4

Table 8-1. Honotua Cable System Project Impacts Summary (Continued)

Resource Area	Short-term Impacts	Long-term Impacts	Mitigation and BMP
			Mitigations: • Marine Protected Species Protection Protocols for marine mammals and turtles will be implemented by an onboard observer during installation to identify and take actions (if needed) to avoid disturbance to or contact with an animal. • Implement the BMPs for *Boat Operations and Dive Activities* provided by National Marine Fisheries Service (NMFS). • An observer shall be present on shore prior to beach activities to ensure there are no turtles or seals present at the beach. • Designated resource managers will be contacted for any incidents involving marine mammals or sea turtles. The "hotline" numbers shall be included on the protocols noted above, and incidents shall be documented in the ship's daily log. • A video transect of the installed cable alignment will be conducted from shore (visibility in the surf zone allowing) to the 25-m (82-ft) water depth contour to document post-installation conditions. OPT will formulate a mitigation plan, based on observed conditions, with input from the relevant resource agencies. Mitigation will be developed, as required, to provide an adequate and appropriate means of addressing site-specific and species-specific impacts.
Air Quality	• Short-term and localized emissions from excavator, winch, and drilling rig.	No impact	BMPs: • Construction equipment and vehicles shall be maintained in proper working order to reduce air emissions. No Mitigations required.

EXHIBIT 5
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Table 8-1. Honotua Cable System Project Impacts Summary (Continued)

Resource Area	Short-term Impacts	Long-term Impacts	Mitigation and BMP
Noise	• Temporary source of noise above ambient levels from excavation, winch, drilling rig, and vessels.	No impact	BMPs: • Construction equipment and vehicles shall be maintained in proper working order to reduce air emissions. No Mitigations required.
Public Facilities	• Disruption to a limited area of the beach at Spencer Beach Park	No impact	See Land Use for related BMPs and mitigations.

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